



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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|--|---|---|-------------------------------------|-----------|---------------------|--------------------------|------------|----------|--------------------------|-------------|--|-------------------------------------|------------|----------------------------|-------------------------------------|-----------|---|--------------------------|------------|-------------------------|--------------------------|-------------|--|--------------------------|--------------|---|
| Applicant's or agent's file reference 664426 | FOR FURTHER ACTION | See Form PCT/IPEA/416 | | | | | | | | | | | | | | | | | | | | | | | | |
| International application No. PCT/JP2004/006596 | International filing date (day/month/year) 11.05.2004 | Priority date (day/month/year) 13.05.2003 | | | | | | | | | | | | | | | | | | | | | | | | |
| International Patent Classification (IPC) or national classification and IPC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Applicant MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>5</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <table border="0"><tr><td><input checked="" type="checkbox"/></td><td>Box No. I</td><td>Basis of the report</td></tr><tr><td><input type="checkbox"/></td><td>Box No. II</td><td>Priority</td></tr><tr><td><input type="checkbox"/></td><td>Box No. III</td><td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Box No. IV</td><td>Lack of unity of invention</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Box No. V</td><td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td></tr><tr><td><input type="checkbox"/></td><td>Box No. VI</td><td>Certain documents cited</td></tr><tr><td><input type="checkbox"/></td><td>Box No. VII</td><td>Certain defects in the international application</td></tr><tr><td><input type="checkbox"/></td><td>Box No. VIII</td><td>Certain observations on the international application</td></tr></table> | | | <input checked="" type="checkbox"/> | Box No. I | Basis of the report | <input type="checkbox"/> | Box No. II | Priority | <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability | <input checked="" type="checkbox"/> | Box No. IV | Lack of unity of invention | <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | <input type="checkbox"/> | Box No. VI | Certain documents cited | <input type="checkbox"/> | Box No. VII | Certain defects in the international application | <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Box No. II | Priority | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | Box No. IV | Lack of unity of invention | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Box No. VI | Certain documents cited | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application | | | | | | | | | | | | | | | | | | | | | | | | |
| Date of submission of the demand | Date of completion of this report | | | | | | | | | | | | | | | | | | | | | | | | | |
| Name and mailing address of the IPEA/JP | Authorized officer | | | | | | | | | | | | | | | | | | | | | | | | | |
| Facsimile No. | Telephone No. | | | | | | | | | | | | | | | | | | | | | | | | | |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/006596

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
 - ☐ publication of the international application (Rule 12.4)
 - ☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

- ☐ the international application as originally filed/furnished
- ☒ the description:

pages 1-4, 7-43 as originally filed/furnished

pages* 5, 6, 6/1 received by this Authority on _____

pages* _____ received by this Authority on _____

- ☒ the claims:
- nos. 5, 7-19 as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* 1, 3, 4, 6 received by this Authority on 06.12.2004

nos.* _____ received by this Authority on _____

- ☒ the drawings:
- sheets fig. 1-38 as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☒ the claims, nos. 2

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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International application No.

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Box No. IV

Lack of unity of invention

1. ☐ In response to the invitation to restrict or pay additional fees the applicant has:
- ☐ restricted the claims.
 - ☐ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☐ neither restricted the claims nor paid additional fees.
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is:
- ☐ complied with.
 - ☒ not complied with for the following reasons:

The inventions that are set forth in claims 1 and 3 to 13 relate to inspecting the attitudes of the parts by means of independent sensors that are associated with each of the respective nozzle rows.

The inventions that are set forth in claims 14 to 19 relate to detecting the heights of the parts by means of a single sensor.

4. Consequently, this report has been established in respect of the following parts of the international application:
- ☒ all parts.
 - ☐ the parts relating to claims Nos. _____

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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| Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | |
|---|---|---------|-----|
| 1. Statement | | | |
| Novelty (N) | Claims | 1, 3-19 | YES |
| | Claims | | NO |
| Inventive step (IS) | Claims | | YES |
| | Claims | 1, 3-19 | NO |
| Industrial applicability (IA) | Claims | 1, 3-19 | YES |
| | Claims | | NO |
| 2. Citations and explanations (Rule 70.7) | | | |
| <p>Document 1: JP 2003-60397 A (Matsushita Electric Ind. Co., Ltd.), 28 February 2003 & US 2003/0029033 A1 & WO 2003/015491 A1</p> <p>Document 2: JP 2003/60395 A (Matsushita Electric Industrial Co., Ltd.), 28 February 2003 & US 2003/0133603 A1</p> <p>Document 3: JP 11-68395 A (Yamaha Motor Co., Ltd.), 09 March 1999 (Family: none)</p> <p>Document 4: JP 2003-124700 A (Nihon Densan Koparu Kabushiki Kaisha), 25 April 2003 (Family: none)</p> <p>Document 5: JP 6-216584 A (Juki Corp.), 05 August 1994 (Family: none)</p> <p>Document 6: JP 2000-156600 A (Matsushita Electric Ind. Co., Ltd.), 06 June 2000 (Family: none)</p> <p>The inventions set forth in claims 1, 3 and 6 do not involve an inventive step in the light of document 1 and document 2 cited in the international search report. Document 2 discloses the feature of arranging the nozzles upon the head part in ten parallel columns, each of which comprises a single nozzle, and then further providing a sensor for each of the ten columns of nozzles. Therefore,</p> | | | |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

it would have been easy for a person skilled in the art to conceive of providing a sensor to each of the columns, as disclosed in document 2, in the device that is disclosed in document 1.

The inventions set forth in claims 4, 5 and 7 do not involve an inventive step in the light of document 1, document 2 and document 3 cited in the international search report. Document 3 discloses the feature of disposing the sensors at locations that are offset from one another.

The inventions set forth in claims 8 to 13 do not involve an inventive step in the light of document 1, document 2 and document 4 cited in the international search report. Document 4 discloses an imaging device that comprises two cameras and a half mirror.

The inventions set forth in claims 14 to 19 do not involve an inventive step in the light of document 1, document 5 cited in the international search report and newly cited document 6. Document 5 discloses sensors that are disposed in a manner such that they are inclined towards the direction of movement, and document 6 discloses the feature of detecting the heights of the parts.